

CRATAEGUS HILLII SARGENT

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This species was originally described by C. S. Sargent in "The Botanical Gazette" (35:384; 1903) from Thatcher's Park, Ill. Thatcher's Park was a station on the M.St.P. & S.S.M. Ry., or Wisconsin Central R.R., located at the point where it turns from the southeast to the south in what is now the village of River Forest at Iowa Street. There is now no station or sidetrack at that location.

River Forest is a residential village of large homes and is bordered on the east by the village of Oak Park and on the west by the Des Plaines River. Thatcher Avenue runs north and south a quarter of a mile west of the old station of Thatcher's Park and marks the western border of the settled area. The area between Thatcher Avenue and the Des Plaines River is owned by the Forest Preserve District of Cook County and is known as Thatcher Woods.

There is a colony of trees in the northern part of Thatcher Woods that fits Sargent's description of hillii fairly well. The colony extends eastward to Thatcher Avenue and undoubtedly extended farther east before the neighborhood was built up. In 1957 I explored the area north of North Avenue and found several trees west of Thatcher Avenue and along Thatcher Avenue. There is a large tree at the east edge of the east sidewalk of Thatcher Avenue north of Bloomingdale Avenue in the village of Elmwood Park. It is very doubtful that any specimens can be found north of Fullerton Avenue, and I have found none south of Augusta Street.

Hillii is a unique species, originating as a hybrid and developing distinctive characters in orthogenetic evolution within a very limited area. The haws are large, 13-21 mm. long and 14-21 mm. wide, and typically slightly obovoid; the haws of some trees are orange-pink when ripe and never darker. The flesh is thick and delicious. Sargent's original description of the nutlets read: "Nutlets 4 or 5, thin, acute at the ends, irregularly ridged and sometimes grooved on the back, about 9 mm. in length." The description in his "Manual of the Trees of North America" reads: "Nutlets 4 or 5, thin, gradually narrowed and acute at the ends, irregularly ridged and sometimes grooved on the back, about 3/8" long." These descriptions fit exactly the nutlets from the trees in Thatcher Woods. Such long nutlets, averaging 9 mm. in length and acute at the ends, are exceptional for any species of the Coccineae or nearby series and distinguish this species from other plants that may have similar leaves and flowers but different nutlets.

On P. 47 of my "Manual of the Hawthorns of Cook and Du Page Counties of Illinois" I mentioned a tree in the Glenview Woods with leaves and flowers like hillii but different haws. I am now convinced that this tree is not hillii but an undescribed local hybrid of mollis and tortilis and that it was a mistake for me to broaden the description of hillii to include the characters of this tree. I am therefore correcting the description of hillii as shown in the following two pages by restricting it to reflect the characters

displayed by the plants in Thatcher Woods and environs.

<sup>1</sup>Shown on a map in H. C. Cowles's "The Plant Societies of Chicago and Vicinity (Geog.Soc. Chgo.; 1901).

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CORRECTED DESCRIPTION OF CRATAEGUS HILLII SARGENT  
AMENDING P. 46 OF KENDALL LAUGHLIN'S "MANUAL OF THE HAW-  
THORNS OF COOK AND DU PAGE COUNTIES"

Bark on young trees slate-gray, smooth; bark on old trees dull dark gray, thick, somewhat scaly and fissured into short irregular vertical plates. Branchlets 1.7-2.9 mm. thick; young branchlets villous, becoming glabrous late in the season; light red-green, brown or reddish brown, often studded with numerous gray lenticels, in their first year, and rather lustrous brown, reddish brown, dull gray-brown or cinereous in the following year. Winter buds 3-6 mm. long. Spines on branches sparse, 3.5-5.6 cm. long, slender, straight, castaneous, slate-colored or dark reddish brown.

Leaves suborbicular or sometimes ovate, obtuse to truncate at the base, with a short acute apex and 4 or 5 pairs of dentate or acute lobes, sharply serrate, 5.2-9.1 cm. long, 4.3-8.2 cm. wide, falling in September, thin when young, firm at maturity, dull moderate yellow green above and pale beneath when young, darker at maturity on some trees; upper surface of young leaves covered with very short white hairs, scabrous or glabrous at maturity; undersurface of young leaves villous on the stout orange midrib and 5-7 pairs of straight or arcuate primary veins, slightly impressed above.

Petioles 1.7-5 cm. long, subterete, with a nearly closed groove, densely villous, red on the upper side.

Flowers blooming May 4-22 on densely villous pedicels in 6-12-flowered lax compound corymbs, 20-26 mm. wide, saucer-shaped.

10-20 stamens in two rows with filaments 4-6 mm. long and purplish pink anthers.

(3-)4-5 pistils.

Calyx-lobes lanceolate, coarsely glandular-serrate.

Haws ripening in the first half of September, soon falling, on short drooping villous pedicels, typically slightly obovoid, sometimes subglobose and flattened at the ends, slightly depressed at the base, 5-angled, glabrous, lustrous orange-pink to scarlet with green dots, 13-21 mm. long, 14-21 mm. wide, with thick firm juicy acidulous yellow flesh. Calyx sessile, usually with erect lobes.

Nutlets usually 5, sometimes 4, light reddish brown, 8-10 mm. long, 4-5 mm. wide, thin, acute at the ends, with a high ungrooved or rarely grooved ridge and plane ventral faces.

CORRECTED DESCRIPTIVE TEXT OF CRATAEGUS HILLII SARGENT  
AMENDING P. 47 OF KENDALL LAUGHLIN'S "MANUAL OF THE HAW-  
THORNS OF COOK AND DU PAGE COUNTIES"

This species is confined mostly to an area of about 25 acres in the northern part of Thatcher Woods. There are a few trees in Evans Woods and along Thatcher Road north of North Avenue, but no trees have been found in the Des Plaines River woods north of Fullerton Avenue.

Previously published descriptions of this species state that the stamens are 20. The flowers that I have examined in Thatcher Woods have 10 to 20 stamens. The A.F.A. champion there is a magnificent, densely branched tree with long, drooping lower branches, a circumference of 4', a height of 36' and a spread of 40'. This tree has 10-20 stamens and orange-pink mostly obovoid haws. The odd number of stamens and cytological studies of its polyspory (the mother cells of its anther sacs have six pollen grains) indicate that hillii is of hybrid origin. The most likely parents are mollis and pedicellata var. robersoniana. The colony in Thatcher Woods, encompassed on the northwest by the Des Plaines River and on the east by prairie, is probably a very old ingrown colony and has probably undergone a long process of evolution.

The distinctive and exceptionally long nutlets of hillii, 8 to 10 mm. long and narrow at the ends, distinguish it from other related species.

Hillii, however, hybridizes with mollis, and plants of mixed origin may show mixed characters.